

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listings of Claims:

Please Amend the remaining claims as indicated below:

1. (Currently amended) A mismatch detector comprising:
a directional device adapted to transmit signals to an antenna and receive reflected signals from the antenna; ~~couple signals across the device;~~
a detector coupled to a port on the directional device and configured to measure a power of the reflected power signal;
a second detector coupled to a port on the directional device and configured to measure a power of the transmit power signal; and
a processor configured to read the measured power of the transmit signal and the measured power of the reflected signal and to generate a first control signal configured to control a matching network and a second control signal configured to control an amplifier, wherein the processor is configured to generate both the first and second control signals based on the measured power of the transmit signal and the measured power of the reflected signal.
2. (Original) The mismatch detector of claim 1 wherein the directional device is a directional coupler.
3. (Original) The mismatch detector of claim 1 wherein the directional device is a circulator.

4. (Original) The mismatch detector of claim 1 wherein the directional device is an isolator.

5. (Original) The mismatch detector of claim 1 wherein the directional device is a circulator and the output of the circulator is coupled to a slow wave structure.

6. (Original) The mismatch detector of claim 5 wherein the slow wave structure is coupled to multiple power detectors.

7. (Original) The mismatch detector of claim 6 wherein the multiple power detectors are configured to measure magnitude and phase of a reflected signal.

8. (Currently amended) A wireless electronic device comprising:

a matching circuit;

a mismatch detector comprising coupled with the matching circuit, the mismatch detector including:

a directional device adapted to transmit signals to an antenna and receive reflected signals from the antenna, ~~couple signals across the device;~~

a detector coupled to a port on the directional device and configured to measure a power of the reflected power signal,

a second detector coupled to a port on the directional device and configured to measure a power of the transmit power signal;

a processor configured to read the measured power of the transmit signal and the measured power of the reflected signal and to generate a first control signal configured to control a matching network and a second control signal configured to control an amplifier, wherein the processor is configured to generate both the first and

second control signals based on the measured power of the transmit signal and the measured power of the reflected signal.

an antenna coupled to the matching circuit;

a transceiver comprising the amplifier coupled to the antenna through the matching circuit;

a control block coupled to the transceiver and adapted to control the transceiver;

a memory coupled to the control block and configured to store data for the control block;

an input device coupled to the control block and configured to receive input from a user; and

a power source coupled to the control block and configured to supply power to the control block.

9. (Original) The wireless device of claim 8 wherein the wireless device is a mobile wireless device.

10. (Original) The wireless device of claim 8 wherein the wireless device is a base station.

11. (Original) The wireless device of claim 8 wherein the wireless device is multiple wireless devices forming a wireless communication system.

12. (Original) The wireless system of claim 11 wherein the multiple wireless devices include at least one base station.

13. (Original) The wireless system of claim 11 wherein the multiple wireless devices include at least one mobile wireless device.

14. (Currently amended) A communication device comprising:

a mismatch detector comprising:

a directional device adapted to transmit signals to an antenna and receive reflected signals from the antenna; ~~couple signals across the device;~~

a detector coupled to a port on the directional device and configured to measure a power of the reflected ~~power~~ signal;

a second detector coupled to a port on the directional device and configured to measure a power of the transmit ~~power~~ signal;

a processor configured to read the measured power of the transmit signal and the measured power of the reflected signal and to generate a first control signal configured to control a matching network and a second control signal configured to control an amplifier, wherein the processor is configured to generate both the first and second control signals based on the measured power of the transmit signal and the measured power of the reflected signal.

15. (Original) The communication device of claim 14 wherein the amplifier is configured to amplify transmit signals.

16. (Original) The communication device of claim 14 wherein the amplifier is configured to amplify receive signals.